



ATTORNEY'S DOCKET NO: N0400.70001US01

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: T. Warren Weeks, Jr. et al.  
Serial No: 10/675,798  
Conf. No.: 2233  
Filed: September 30, 2003  
For: GALLIUM NITRIDE MATERIALS AND METHODS  
Examiner: Gwendolyn A. Blackwell Rudasil  
Art Unit: 1775

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 18<sup>th</sup> day of October, 2004.

  
Christine A. Gardner

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Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.

No fee or certification is required.

**PART II: Information Cited**

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Title of Application</u>
09/792,409	February 23, 2001	Gallium Nitride Materials Including Thermally Conductive Regions

A copy of the above pending application has been provided, along with a copy of the claims as allowed.

PART III: Remarks

Documents cited on the attached form PTO-1449 (modified) are enclosed unless otherwise indicated on the attached form PTO-1449 (modified). It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

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Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

By: 

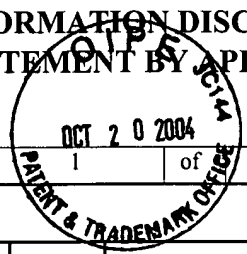
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Docket No. N0400.70001US01

Dated: October 18, 2004

**xNDD**

FORM PTO-1449/A and B (Modified)		APPLICATION NO.: 10/675,798	DOCKET NO: N0400.70001US01
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		FILING DATE: September 30, 2003	
		APPLICANT: Weeks Jr., et al.	
		GROUP ART UNIT: 1775	EXAMINER: Blackwell Rudasil
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**U.S. PATENT DOCUMENTS**

Examiner's Initials#	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYY
		Number	Kind Code		
	*	5,192,987	B1	Khan et al.	03/09/93
	*	5,239,188	B1	Takeuchi et al.	08/24/93
	*	5,290,393	B1	Nakamura	03/01/94
	*	5,296,395	B1	Khan et al.	03/22/94
	*	5,389,571	B1	Takeuchi et al.	02/14/95
	*	5,393,993	B1	Edmond et al.	02/28/95
	*	5,442,205	B1	Brasen et al.	08/15/95
	*	5,523,589	B1	Edmond et al.	06/04/96
	*	5,633,192	B1	Moustakas et al.	05/27/97
	*	5,679,965	B1	Schetzina	10/21/97
	*	5,739,554	B1	Edmond et al.	04/14/98
	*	5,741,724		Ramandi et al.	04/21/98
	*	5,760,426	B1	Marx et al.	06/02/98
	*	5,786,606		Nishio et al.	07/28/98
	*	5,815,520	B1	Furushima	09/29/98
	*	5,821,555	B1	Saito et al.	10/13/98
	*	5,838,029	B1	Shakuda	11/17/98
	*	5,838,706	B1	Edmond et al.	11/17/98
	*	5,874,747		Redwing et al.	02/23/99
	*	5,880,491	B1	Soref et al.	03/09/99
	*	6,039,803	B1	Fitzgerald et al.	03/21/00
	*	6,045,626	B1	Yano et al.	04/04/00
	*	6,051,849	B1	Davis et al.	04/18/00
	*	6,060,331	B1	Shakouri et al.	05/09/00
	*	6,064,078	B1	Northrup et al.	05/16/00
	*	6,069,021	B1	Terashima et al.	05/30/00
	*	6,100,545	B1	Chiyo et al.	08/08/00
	*	6,120,600	B1	Edmond et al.	09/19/00
	*	6,121,121	B1	Koide	09/19/00
	*	6,139,628		Yuri et al.	10/31/00
	*	6,146,457		Solomon	11/14/00
	*	6,156,581		Vaudo et al.	12/05/00
	*	6,177,688	B1	Linthicum et al.	01/23/01
	*	6,201,262	B1	Edmond et al.	03/13/01
	*	6,255,198	B1	Linthicum et al.	07/03/01
	*	6,261,929	B1	Gehrke et al.	07/17/01
	*	6,261,931	B1	Keller et al.	07/17/01

<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>			APPLICATION NO.: 10/675,798	DOCKET NO: N0400.70001US01	
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	*	6,265,289	B1	Zheleva et al.	07/24/01
	*	6,329,063	B2	Lo et al.	12/11/01
	*	6,380,108	B1	Linthicum et al.	04/30/02
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	*	6,426,512		Ito et al.	07/30/02
		6,441,393		Goetz et al.	02/27/02
		6,486,502	B1	Sheppard et al.	11/26/02
		6,521,514		Gehrke et al.	02/18/03
		6,586,781	B2	Wu et al.	07/01/03
		6,611,002		Weeks et al.	08/26/03
		6,617,060		Weeks et al.	09/09/03
	*	2001/0008656	A1	Tischler et al.	07/19/01
	*	2001/0042503	A1	Lo et al.	11/22/01
	*	2002/0020341	A1	Marchand et al.	02/21/02
		2002/0117695		Borges	08/29/02
		2003/0136333	A1	Semond et al.	07/24/03

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials#	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/Country	Number	Kind Code			
	*	EP	0 514 018		American Telephone & Telegraph	11/19/92	
	*	EP	0 852 416	A1	Hitachi, Ltd.	07/08/98	
	*	EP	0 942 459	A1	Nichia Chemical Industries, Ltd.	09/15/99	
	*	EP	0 951 055	A2	Hewlett-Packard Company	10/20/99	
	*	JP	11040847		Toshiba Corp.	02/12/99	
	*	JP	11145514		Toshiba Corp.	05/28/99	
	*	WO	96/41906		Advanced Tech. Materials	12/27/96	
	*	WO	00/33365	A1	North Carolina State University	06/08/00	
	*	WO	01/27980	A1	Cree, Inc.	04/19/01	
	*	WO	01/37327	A1	North Carolina State University	05/25/01	
	*	WO	01/43174	A2	North Carolina State University	06/14/01	
	*	WO	01/47002	A2	North Carolina State University	06/28/01	
	*	WO	01/59819	A1	North Carolina State University	08/16/01	

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials#	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
	*	HIROSAWA et al., "Growth of Single Crystal Al <sub>x</sub> Ga <sub>1-x</sub> N Films on Si Substrates by Metalorganic Vapor Phase Epitaxy," Jpn. J. Appl. Phys. Vol. 32 (1993) pp 1039-1042		

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		ISHIKAWA et al., "High-Quality GaN on Si Substrate Using AlGaIn/AlN Intermediate Layer," Phys. Stat. Sol. 176:599 (1999)		
	*	PEARSALL, "Strained-Layer Superlattices: Materials Science & Technology," Semiconductors and Semimetals, v.33, p.242-243, Dept. of Electrical Engineering, University of Washington, Seattle, Washington, Academic Press Inc. (1991)		
	*	Search Report dated October 21, 2002, from corresponding International Application No. PCT/US01/48426.		

EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 09/736,972 , filed December 14, 2000 , and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).  
[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an IDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]